

## ABSTRACT

This invention provides a configurable multi-dwell search engine for performing automated efficient searches of a known code sequence space. Inputs from a multi-dwell table and a finger control table are multiplexed by a first multiplexer.

- 5 Output from the first multiplexer is used to generate a threshold comparison signal. The generated threshold comparison signal, the current dwell state signal and inputs from a next dwell look-up table are multiplexed by a second multiplexer. The second multiplexer outputs a hard hit signal and an offset control signal.

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